



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/492,079	01/27/2000	Hiromi Sutou	501.38112X00	9424

20457 7590 10/27/2004

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-9889

EXAMINER

TODD, GREGORY G

ART UNIT PAPER NUMBER

2157

DATE MAILED: 10/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/492,079

Applicant(s)

SUTOU, HIROMI

Examiner

Gregory G Todd

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 22-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 22-30 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This is a fourth office action in response to applicant's amendment filed, 10 June 2004, of application filed, with the above serial number, on 27 January 2000 in which claims 1, 4, 8-10, 12, 15, and 21 have been amended and claims 22-30 have been added. Claims 1-30 are therefore pending in the application.

Election/Restrictions

2. Newly submitted claims 22-30 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: As Applicant admits in the last paragraph on page 23, claims 22-30 recite additional features, including but not limited to, for example, previously defining default items in a current system and performing operations in the current system on an item file from an upper system relative to the default item.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 22-30 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2157

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4, 8 recite the limitation "said current system" in line 5, 6, respectively.

There is insufficient antecedent basis for this limitation in the claim.

Claims 1, 4, 8-10, 12, 15, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended the claims to include, for example, "an upper system in a higher hierarchical level". This is indefinite, as this could be a) redundant, as the upper system is part of a hierarchy, and being in the higher portion of the hierarchy; or b) an upper system within the higher hierarchical level, where there are many systems in the higher hierarchical level, and the upper system being the highest in that level. Further, the specification does not support hierarchical levels of any sort, nor "middle" levels. While hierarchies are well known in the art, the specification, specifically the description, does not use this claim terminology. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2157

5. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arakawa (hereinafter "Arakawa", 5,408,610) in view of DeVries (hereinafter "DeVries", 5,721,914).

As per claim 1, Arakawa teaches a method of data transfer in a hierarchical computer system, comprising the steps of:

receiving first data including an item from an upper system (upstream node) (at least col. 3, line 24-29);

updating attribute information (i.e. management data added to original management data) corresponding to the item held in a current system (control unit) and adding second data (new management information) held in the current system to the first data (at least col. 6 line 60 - col. 7 line 3); and

sending said second data to said upper system and sending said first data and said second data to a lower system (downstream node) (at least col. 6, line 60 - col. 7 line 3).

Arakawa fails to disclose the attribute information indicating a hierarchical relationship of the system by which said item is managed and the hierarchical systems levels. However, the use and advantages for using such hierarchical information is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of DeVries, wherein DeVries discloses a hierarchical data distribution system where databases are updated according to their level in the hierarchy (at least col. 2, lines 27-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of updating attribute information

Art Unit: 2157

according to hierarchy between users on a network as this would allow system attribute information to be updated only according to whether the system is being updated by a higher system so that a client, for example, cannot update a server and only an administrator, higher up than a client and server, can manage and update the server's attributes, thus improving Arakawa's system to allow management to only be done according to a system at a higher level.

As per claim 2, Arakawa teaches the method of data transfer further comprising the steps of:

if the item included in the received first data exists in the current system, updating the existing item (at least col. 3, line 34-38);

changing attribute information for the item held in the current system to a value indicative of common data (at least col. 3, line 58-64);

if the item does not exist in the current system, adding the item to the current system (at least col. 3, line 39-45); and

changing the attribute information for the item held in the current system to a value indicative of data which is prepared by the upper system (at least col. 3, line 58-64).

As per claim 3, Arakawa teaches the method of data transfer further comprising the steps of:

receiving at least one of edit requirements for addition and deletion of the item (at least col. 3, line 30-45); and

Art Unit: 2157

changing attribute information for the item held in the current system according to the change of the item and item content of the current system corresponding to the item (at least col. 3, line 61-64).

As per claim 4, Arakawa teaches a method of data transfer in a hierarchical computer system, comprising the steps of:

receiving in a current register first data including an item and from a lower system (at least col. 5, line 41-45);

if said item exists in a database of the current system and attribute information corresponding to the item indicates a value managed by an upper system, reading data included in the first data and the read data into second data (at least col. 6-7, line 60-3); and

sending said second data to said upper system and said lower system (at least col. 7, line 2-3).

Arakawa fails to disclose the attribute information indicating a hierarchical relationship of the system by which said item is managed and the hierarchical systems levels. However, the use and advantages for using such hierarchical information is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of DeVries, wherein DeVries discloses a hierarchical data distribution system where databases are updated according to their level in the hierarchy (at least col. 2, lines 27-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of updating attribute information according to hierarchy between users on a network as this would allow system attribute

information to be updated only according to whether the system is being updated by a higher system so that a client, for example, cannot update a server and only an administrator, higher up than a client and server, can manage and update the server's attributes, thus improving Arakawa's system to allow management to only be done according to a system at a higher level.

As per claim 5, Arakawa teaches the method of data transfer wherein, if the attribute information corresponding to the item indicates a value not managed by the upper system, the data is stored in the current system (at least col. 5, line 62-68).

As per claim 6, Arakawa teaches the method of data transfer wherein the first data includes an operation flag indicative of either one of item addition or item deletion, and addition of the item to the current system is determined on the basis of the operation flag and information indicative of existence or absence of the item in the current system (at least col. 5, line 55-68).

As per claim 7, Arakawa teaches the method of data transfer wherein the second data holds manager system information indicative of the item is the-data associated with the current system and whether the item is processed or not is determined on the basis of the manager system information (at least col. 5, line 65-68).

As per claim 8, Arakawa teaches a method of data transfer in a hierarchical network comprising the steps of:

receiving in a current register first data including an item , data and manager system information indicative of whether the item is data associated with said current system from a lower system (at least col. 3, line 24-33);

Art Unit: 2157

if the manager system information is data associated with the current system, updating content of an item held in the current system by use of the data (at least col. 3, line 39-43);

if the manager system information has information indicative of another system, deleting the information indicative of the current system (at least col. 3, line 34-38);

forming second data by the item, the data, and the manager system information with the information indicative of the current system deleted (at least col. 3, line 24-45); and

sending the second data to said lower system and an upper system (at least col. 3, line 44-45).

Arakawa fails to disclose the attribute information indicating a hierarchical relationship of the system by which said item is managed and the hierarchical systems levels. However, the use and advantages for using such hierarchical information is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of DeVries, wherein DeVries discloses a hierarchical data distribution system where databases are updated according to their level in the hierarchy (at least col. 2, lines 27-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of updating attribute information according to hierarchy between users on a network as this would allow system attribute information to be updated only according to whether the system is being updated by a higher system so that a client, for example, cannot update a server and only an administrator, higher up than a client and server, can manage and update the server's

Art Unit: 2157

attributes, thus improving Arakawa's system to allow management to only be done according to a system at a higher level.

As per claim 9, Arakawa teaches a method of data transfer in a hierarchical network comprising the steps of:

receiving in a current system first data from a lower system (at least col. 3, line 24-29);

forming second data by an item corresponding to default information held in said current system and data included in the first data (at least col. 6, line 1-10); and

sending said second data to said lower system and an upper system (at least col. 6, line 1-10).

As per claim 10, Arakawa teaches a method of data transfer in a hierarchical computer system comprising the steps of:

receiving in a current system first data from an upper system (receiving an original management information from upstream node) (at least col. 5, line 41-45);

storing into said current system (control unit) an item included in the first data, the item corresponding to default information held in the current system (management information from packet) (at least col. 5, line 45-55);

storing data with the item corresponding to the default information of the current system deleted from the first data into second data (new management information deleting original management information) (at least col. 5, line 55-68); and

sending said second data to said upper system and a lower system (transmitting to downstream node) (at least col. 6, line 9-10).

As per claim 11, Arakawa teaches the method of data transfer wherein data to be sent to the upper system forms the second data when there is no more data to be sent to the lower system after deleting the item corresponding to the default information of the current system from the first data and the second data is sent to the upper system (at least col. 6-5, line 60-3).

As per claim 12, Arakawa teaches a data transfer apparatus for use in a hierarchical computer system, comprising:

a receiving block for receiving in a current system first data including an item from an upper system (receiving an original management information from upstream node) (at least col. 5, line 41-45);

a merge processing block for updating attribute information corresponding to the item and held in a current system (control unit) and adding second data held in the current system to the first data (new management information added to original management information) (at least col. 6, line 1-10); and

a sending block for sending said second data to said upper system and sending said first data and the second data to a lower system (transmitting to downstream node) (at least col. 6, line 9-10).

Arakawa fails to disclose the attribute information indicating a hierarchical relationship of the system by which said item is managed and the hierarchical systems levels. However, the use and advantages for using such hierarchical information is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of DeVries, wherein DeVries discloses a hierarchical data distribution system

Art Unit: 2157

where databases are updated according to their level in the hierarchy (at least col. 2, lines 27-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of updating attribute information according to hierarchy between users on a network as this would allow system attribute information to be updated only according to whether the system is being updated by a higher system so that a client, for example, cannot update a server and only an administrator, higher up than a client and server, can manage and update the server's attributes, thus improving Arakawa's system to allow management to only be done according to a system at a higher level.

As per claim 13, Arakawa teaches the data transfer apparatus wherein the merge processing block updates the existing item, if the item included in the received first data exists in the current system (at least col. 3-4, line 68-7); changes attribute information for the item held in the current system to a value indicative of common data (at least col. 3, line 61-64); adds the item to the current system, if the item does not exist in the current system (at least col. 5, line 45-49); and changes the attribute information for the item held in the current system to a value indicative of data which is prepared by the upper system (at least col. 3, line 64-68).

As per claim 14, Arakawa teaches the data transfer apparatus further comprising:
an edit processing block for receiving at least one of edit requirements for addition and deletion of the item and changing attribute information for the item held in current system according to the change of the item and item content of the current system corresponding to the item (at least col. 5, line 49-68).

As per claim 15, Arakawa teaches a data transfer apparatus for use in a hierarchical computer system, comprising:

a receiving block for receiving in a current register first data including an item from a lower system (at least col. 3, line 24-33);

an update processing block for, if the item exists in a database of a current system and attribute information corresponding to the item indicates a value managed by an upper system, reading the data included in the first data and storing the read data into second data (at least col. 7, line 12-19); and

a sending block for sending the second data to said upper system and said lower system (at least col. 6, line 1-10).

Arakawa fails to disclose the attribute information indicating a hierarchical relationship of the system by which said item is managed and the hierarchical systems levels. However, the use and advantages for using such hierarchical information is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of DeVries, wherein DeVries discloses a hierarchical data distribution system where databases are updated according to their level in the hierarchy (at least col. 2, lines 27-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of updating attribute information according to hierarchy between users on a network as this would allow system attribute information to be updated only according to whether the system is being updated by a higher system so that a client, for example, cannot update a server and only an administrator, higher up than a client and server, can manage and update the server's

Art Unit: 2157

attributes, thus improving Arakawa's system to allow management to only be done according to a system at a higher level.

As per claim 16, Arakawa teaches the data transfer apparatus wherein, if the attribute information corresponding to the item is a value indicative of common manager item, the updating processing block stores the data into the current system (at least col. 5, line 45-55).

As per claim 17, Arakawa teaches the data transfer apparatus as claimed in claim 12, wherein the first data includes an operation flag indicative of either one of item addition or item deletion, and the merge processing block determines whether or not to add the item to the current system on the basis of the operation flag (at least col. 5, line 55-68).

As per claim 18, Arakawa teaches the data transfer apparatus wherein the second data holds manager system information indicating that the item is data associated with the current system and the merge processing block determines whether or not to process the item on the basis of the manager system information (at least col. 6, line 1-10).

As per claim 19, Arakawa teaches a recording medium readable by a computer storing program for executing the data transfer method cited in claim 1 (at least col. 5, line 27-36).

As per claim 20, Arakawa teaches a recording medium readable by a computer storing a program for executing the data transfer method cited in claim 2 (at least col. 5, line 27-36).

As per Claim 21, Arakawa discloses a method of data transfer in a hierarchical computer system, said hierarchical computer system including a plurality of computers, wherein Arakawa discloses:

holding items of information to be managed and attribute information corresponding to said items in a current computer, (at least col. 5 line 65 - col. 6 line 10);

determining whether or not response result from a lower computer for information acquisition requirement related to an item of said managed information is to be transferred to an upper computer according to said attribute information (at least col. 3, line 24-29);

when said information acquisition requirement is issued from said upper computer to said lower computer via said current computer, receiving by said current computer data including items of information managed by said upper computer (at least col. 6 line 60 - col. 7 line 3);

when said items of information managed by said current computer exist in items, included in said data, of information managed by said upper computer, updating attribute information corresponding to items, included in said data, of information managed by said upper computer from a first value indicative that said item is managed by said current computer to a second value indicative that said item is a common item common to said upper computer and said current computer (at least col. 3, line 39-64);

when items of information managed by said current computer do not exist in items, included in said data, of information managed by said upper computer, adding

Art Unit: 2157

items of information managed by said current computer to said data (at least col. 3, line 39-64); and

sending, to said upper and lower computers, information acquisition requirement including data that items of information managed by said current computer are added to said data (at least col. 6, line 60 - col. 7 line 3).

Arakawa fails to disclose the attribute information indicating a hierarchical relationship of the system by which said item is managed and the hierarchical systems levels. However, the use and advantages for using such hierarchical information is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of DeVries, wherein DeVries discloses a hierarchical data distribution system where databases are updated according to their level in the hierarchy (at least col. 2, lines 27-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of updating attribute information according to hierarchy between users on a network as this would allow system attribute information to be updated only according to whether the system is being updated by a higher system so that a client, for example, cannot update a server and only an administrator, higher up than a client and server, can manage and update the server's attributes, thus improving Arakawa's system to allow management to only be done according to a system at a higher level.

Response to Arguments

6. Applicant's arguments filed 10 June 2004 have been fully considered but they are not persuasive.

Applicants argue Arakawa fails to teach the claims as amended, including the transferring of data according to a hierarchical system. As Applicant notes on page 22, Arakawa is not relied on as teaching a hierarchical system. Rather, DeVries is relied on as teaching a hierarchical data distribution system wherein intermediate level servers control communication between higher level servers and lower level servers (at least DeVries col. 2, lines 27-51; col. 4, lines 14-46).

Applicants further argue DeVries does not teach updating attribute information corresponding to the item as held and said attribute information indicating a hierarchical relationship. Arakawa teaches updating attribute information (i.e. management data added to original management data) corresponding to the item held in a current system (control unit) (see col. 6 line 60 - col. 7 line 3). DeVries teaches the attribute information indicating a hierarchical relationship of the system by which said item is managed and the hierarchical systems levels. DeVries further teaches a hierarchical data distribution system wherein databases are updated according to their level in the hierarchy. An intermediate server will receive information from a master server, wherein said information contains, for example, attribute information indicating it is an update from a master server, said update being distributed to lower level servers containing lower level copies of the database being updated (at least DeVries col. 2, lines 27-51; col. 4, lines 14-46).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Arakawa teaches a network wherein nodes receive management information from other nodes in a network and DeVries teaches managing lower level servers according to a hierarchy, thus DeVries and Arakawa similarly are transferring information between nodes on a network with an ultimate goal of updating nodes based on received management information.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2157

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Newly cited Sugita and Matsuoka et al in addition to previously cited Norin, Quinn, Hartnett, Heindel et al, Otto et al, Tsutsui et al, Tezuka et al, and Brunet et al are cited for disclosing pertinent information related to the claimed invention. Applicants are requested to consider the prior art reference for relevant teachings when responding to this office action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory G Todd whose telephone number is (571)272-4011. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm w/ first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2157

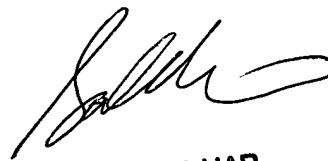
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory Todd



Patent Examiner

Technology Center 2100



SALEH NAJJAR
PRIMARY EXAMINER